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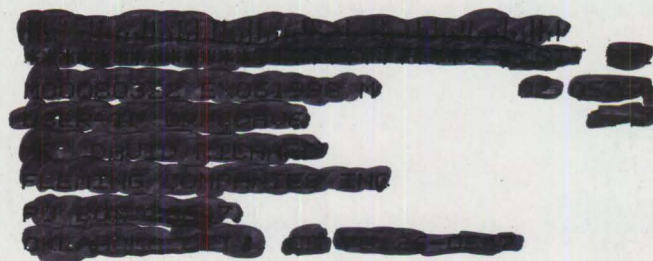
SUPPORT[®]

MAY 1998 VOLUME 6, NUMBER 5

NETWORK PROBLEM DIAGNOSIS

CONSISTENT SIGN-ON TECHNOLOGY

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FEATURES

8 Authenticating Today's Distributed User With Consistent Sign-On Technology

By Rares Pateanu

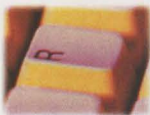
It's becoming increasingly difficult to keep track of all the entry points into your systems and to secure all of them in a consistent, easy to use and cost-effective way. Single sign-on is an attractive alternative, but it is falling short of initial expectations. A more practical approach for today's data centers is consistent sign-on.

secure

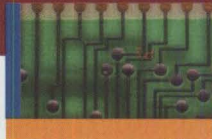
36 Implementing a Network Diagnostic Tool for Mainframes: A User's Experience

By Mike Megson

This article examines how one site's conversion to Frame Relay and APPN prompted them to seek an alternative to a GTF trace for network problem diagnosis.



SYSTEMS



13 CICS/ESA V4R1: The External CICS Interface — Part I

By Michael H. Carroll

The external CICS interface (EXCI) is an application programming interface (API) that enables a non-CICS program running in MVS (a client program) to call a program running in a CICS/ESA 4.1 region (a server program) and to pass and receive data by means of a communications area. The CICS application program is invoked as if linked to another CICS application program (EXEC CICS LINK).

18 Using MQSeries for Synchronous Processing: Part II

By Richard Tsujimoto

This concluding article examines a high-level design that uses MQSeries to replace FTP as an alternative method of synchronous data transmission.

NETWORKING



28 Optimizing Your Network Backup Performance: Part II

By Ira Goodman

Optimizing a network backup often turns out to be surprisingly difficult because there are so many variables involved. However, having a powerful, dedicated Master Server and balancing data and devices can help. Also, understanding some simple programs that can be used for both planning and troubleshooting, as well as knowing which software settings can drain resources and effect performance, will allow you to optimize your use of backups.

33 Submitting Jobs and Retrieving the Output Via FTP

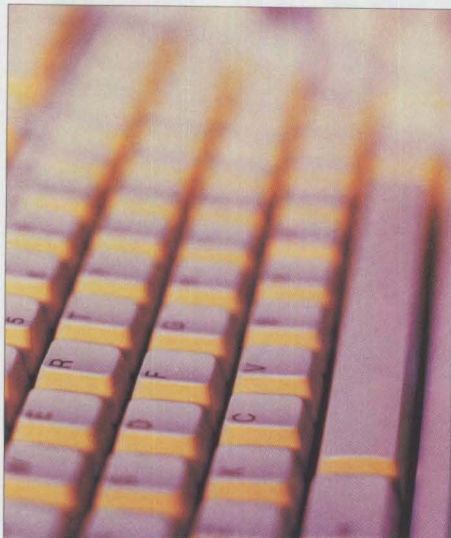
By Lionel B. Dyck

This article demonstrates how TCP/IP's File Transfer Protocol (FTP) can be an effective alternative to Remote Job Entry (RJE) systems. With FTP it is possible to submit JCL from your desktop to the mainframe, have it execute, and bring the resulting SYSOUT back to your desktop.

44 Integrating Windows NT Into an Existing NetWare Network: Part III

By John E. Johnston

Choosing a protocol for the Windows NT environment is an important decision for network administrators, one that unfortunately is often not thought through carefully, resulting in an unresponsive network.



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NaSPA Technical Support (ISSN 1079-3135) (IPM Agreement Number 0806773) is published monthly by Technical Enterprises Inc., 7044 S. 13th Street, Oak Creek, WI 53154-1429. Periodicals postage paid at Oak Creek, WI and additional mailing office. **POSTMASTER:** Send address changes to *NaSPA Technical Support*, 7044 S. 13th Street, Oak Creek, WI 53154-1429.

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C O L U M N S

- | | | | |
|-----------|--|-----------|---|
| 48 | MVS Tools & Tricks
Undeleting Data: Part I
<i>By Sam Golob</i> | 62 | NT Insights
NT Group and User Management Strategies: Part III
<i>By Guy C. Yost</i> |
| 51 | VSE Tools & Techniques
VSE Data Spaces: Part III —
Using the ALESERV Macro
<i>By Leo J. Langevin</i> | 64 | Book Review
<i>TechnoStress: Coping With Technology @Work @Home @Play</i>
<i>By Tom Bryant</i> |
| 54 | Working Smarter
The ISRDDN Utility
<i>By Jim Moore</i> | 65 | OS/2 Insights
Custom Booting
<i>By Rick Byrley</i> |
| 56 | Storage Strategies
The Catalog Search Interface
<i>By Steve Pryor</i> | 67 | Evolutions
The Computer Revolution
<i>By Michael Norton</i> |
| 58 | Consultants' Corner
Choosing a Consultant:
How to Find the Right Expert
<i>By Michele D. Newhouse</i> | 69 | On a Personal Note
Life is Dessert
<i>By Mike Sutton</i> |
| 60 | Enterprise Networking
Running Outlook 97 on WinFrame
<i>By John E. Johnston</i> | 74 | Open Forum
Email: Overused, Abused and Invaluable
<i>By G.A. Andy Marken</i> |

D E P A R T M E N T S

- | | | | |
|-----------|---|-----------|---------------------------------|
| 7 | President's Letter | 70 | Education Vendors |
| 32 | Technical Support Reprints | 72 | HOTLINKS/Demos On Demand |
| 35 | NaSCOM World Class Internet Site | 73 | Reader Services |
| 40 | NaSPA Services Directory | 76 | Recent Releases |
| 42 | NaSPA Direct | 77 | NaSPA Insurance Programs |

Custom Booting

BY RICK BYRLEY

Like most of you, I suspect, I have to live with the reality of supporting multiple operating systems on the various networks we have here at SofTouch Systems. This means I spend a lot of time rebooting. Additionally, I support laptop users who need multiple boot configurations to load the appropriate drivers and protocols when they are connected to the network. More importantly, I need the flexibility to skip loading drivers on these machines, thus saving myself a support call when error messages flash across the users' screen that a specified driver cannot be found. All of this is quite a challenge, but OS/2 provides the tools to pull off the hat trick.

THE OS/2 BOOT MANAGER

Although both Windows 95 and NT come with a boot manager, neither allows me to boot to my OS/2 partition. Therefore, I use the OS/2 boot manager to access my partitions. Note that the boot manager must be installed after Windows 95 or NT — the Microsoft operating systems will wipe out an existing OS/2 boot manager.

The OS/2 boot manager is installed using either the command line FDISK program while booted to floppies or by selecting the "Create partition" option from the Drives object pop-up menu. In either case select the "Install boot manager" option from the FDISK or FDISKPM Options menu. You will be prompted to select whether you want to install the boot manager at the start of free space or the end of free space. I put my boot manager at the end of free space to minimize conflicts with other boot managers (although this doesn't help with Windows 95 or NT) unless the drive has more than 1,023 cylinders. BIOS limitations prevent booting to any partition starting beyond cylinder 1,023. Once installed, set

the partition as startable from the Options menu and exit the FDISK program, saving the changes. You will then need to reboot your machine. Note that installing boot manager requires repartitioning your disk if you do not have any free space on the drive. Be sure and back up your data!

Although both Windows 95 and NT come with a boot manager, neither allows me to boot to my OS/2 partition. Therefore, I use the OS/2 boot manager to access my partitions.

You can customize boot manager to select a specified volume as the default rather than the previously booted volume. From the FDISK or FDISKPM menu, select the 'Set Startup Values' option, and enter the name of the desired default volume in the 'Default' field of the 'Startup Values' dialog. While you're there, you can adjust the timeout value or disable the timeout altogether, and also select whether you want the boot manager to display only the partition name (normal mode) or the partition name, drive and format (advanced mode).

USING SETBOOT

OS/2 provides the command SETBOOT that allows you to change the boot manager options from a command line and bypass the boot manager menu at startup. The IBA parameter allows you to specify the name of the partition you want to boot. For example, if you have boot manager partitions

named DOS and OS2, entering the command SETBOOT /IBA:DOS will shut down the system and reboot to the DOS partition. You bypass partition aliases and boot to a specific partition by using the /IBD switch. The command SETBOOT /IBD:C will reboot to the D: drive. The /Q switch will display the current boot manager values.

SETTING UP MULTIPLE CONFIGURATIONS

At times you do not necessarily want to boot to a different partition but merely a different configuration for OS/2. The obvious example is laptops that use different configurations depending on whether the machine is connected to the network. However, this technique can also be used to create a default "safe" configuration that will allow you to boot when your standard configuration gets clobbered. The archiving facility of Warp allows you to manage multiple configurations. Setting

Tip of the Month

Although the path that OS/2 searches for DLLs is set in the LIBPATH statement and cannot be altered after booting, you can set the environment variables BEGINLIBPATH and ENDLIBPATH to alter the path dynamically from an OS/2 session. Paths specified in the BEGINLIBPATH environmental variable will be searched first for processes started in that session, followed by paths specified in the LIBPATH and ENDLIBPATH variables.

up multiple configurations involves the following steps:

1. Create the CONFIG.SYS files. This can be accomplished with any text editor. Save the alternate configuration files to the OS2\BOOT directory on your boot drive with the filename CONFIG and a one-letter extension of your choice. This one-letter extension should be mnemonic because it will be used from the archiving menu to select that particular configuration. The default configuration should be named CONFIG.SYS and saved to the root directory of the boot drive. On network machines it is best to use the non-network configuration as the default. For example, to create two configurations with one supporting networking, save the non-network version as C:\CONFIG.SYS (assuming C: is the boot drive). Save the network version as C:\OS2\BOOT\CONFIG.N.

2. Configure the archive facility so that the archive screen is displayed

at boot time with the available configurations. To do this, issue the command ATTRIB

C:\OS2\BOOT\ALTF1MID.SCR -R to clear the read-only attribute. Then edit the file, using the format of the current entry as a model to add an entry for the alternate configuration. In the previous example, the modified ALTF1MID.SCR file would contain two entries and appear as follows after adding an entry for the CONFIG.N file:

```
X) Original archive from INSTALL
created 3-25-98 4:14:08PM
N) Network
```

The letter used must match the extension used for the alternate CONFIG file (in this case 'N'). Save the file and reset the read-only attribute by issuing the command ATTRIB C:\OS2\BOOT\ALTF1MID.SCR +R.

3. Open the Properties dialog for the Desktop and click on the Archive tab.

Select 'Display Recovery Choices at each system startup' and close the dialog.

After completing these steps, whenever the machine is rebooted the blue Archive menu will appear allowing the user to select which configuration to use. In the previous example, pressing the 'N' key will cause the network configuration to load. Pressing the escape key or allowing the timer to lapse will load the non-network version. **ts**

Was this column of value to you? If so, please circle Reader Response Card No. 44.

Rick Byrley is senior workstation division technician for SoftTouch Systems, Oklahoma City, Okla., which provides both mainframe and PC software solutions. His primary focus is object-oriented programming. He can be reached at rbyrley@softtouch.com.

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